(c)   identifying the code table associated with a spectral section;

(d)   decoding the priority code words of a spectral section with the corresponding associated code table to obtain decoded spectral values; and

(e)   transforming the decoded spectral values back into the time domain to obtain a decoded audio signal.

25.   A device for decoding a bit stream representing a coded audio signal, where the coded bit stream contains code words of different lengths from a code table and has a raster with equidistant raster points (10, 12, 14), where the code words include priority code words, which represent particular spectral values which are psychoacoustically important compared to other spectral values, and where priority code words are aligned with raster points, comprising:

(a)   a unit for detecting the distance (D1) between two adjacent raster points;

(b)   a unit for resorting the priority code words, which are aligned with the raster points, in the coded bit stream in such a way as to obtain a linear arrangement of the same with frequency, the start of a priority code word coinciding with a raster point;

(c)   a unit for decoding the priority code words with an associated code table to obtain decoded spectral values; and

(d)   a unit for transforming the decoded spectral values back into the time domain to obtain a decoded audio

signal.

26. A device for decoding a bit stream representing a coded audio signal, where the coded bit stream contains code words of different lengths from at least two code tables and has a raster with at least two groups of equidistant raster points (10, 12, 14 and 14, 16, 18), where the code words include priority code words, which represent particular spectral values which are psychoacoustically important compared to other spectral values, and where priority code words are aligned with raster points, comprising:

(a) a unit for detecting the distance (D1, D2) between two adjacent raster points;

(b) a unit for resorting the priority code words, which are aligned with the raster points, in the coded bit stream in such a way as to obtain a linear arrangement of the same with frequency, the start of a priority code word coinciding with a raster point;

(c) a unit for identifying the code table associated with a spectral section;

(d) a unit for decoding the priority code words of a spectral section with the corresponding associated code table to obtain decoded spectral values; and

(e) a unit for transforming the decoded spectral values back into the time domain to obtain a decoded audio signal.

Methods and Devices for Coding or Decoding an Audio Signal or Bit Stream

Abstract

In a method for coding an audio signal to obtain a coded bit
stream, discrete-time samples of the audio signal are trans-
formed into the frequency domain to obtain spectral values.
The spectral values are coded with a code table having a lim-
ited number of code words of different lengths to obtain spec-
tral values coded by code words, the length of a code word as-
signed to a spectral value being that much shorter the higher
the probability of occurrence of the spectral value is. A
raster is then specified for the coded bit stream, the raster
having equidistant raster points and the distance between the
raster points depending on the code table(s) used. In order to
obtain error-tolerant Huffman coding, priority code words,
which represent particular spectral values which are psycho-
acoustically more important than other spectral values, are so
arranged in the raster that the start of each priority code
word coincides with a raster point.